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= EP 544,158 = DE 41 38 763

(2)

<p>93-176618/22 A14 D21 H01 (A96 A97) BADI 91.11.26 BASf AG *DE 4138763-A1 91.11.26 91DE-4138763 (93.05.27) C08L 39/04, C02F 1/56, C08F 8/44, C09K 7/00, C10G 33/04, C09K 3/16, C08F 26/06 Homo or copolymers of quat. 1-vinyl imidazole(s) useful as polyelectrolytes - prepd. by adding quaternising agent to polymer contg. 1-vinyl imidazole and copolymerisable monomer e.g. vinyl pyrrolidone, for cosmetics and oil recovery agents C93-078827</p>	<p>A(4-D8, 10-E19, 12-M1) D(8-B) H(1-D6)</p> <p>(R⁴)_nA (II)</p> <p>R⁴ = 1-20C alkyl or benzyl; A = iodide, carbonate, sulphate or (m)ethyl sulphate; and n = 1-2.</p> <p><u>USE/ADVANTAGE</u> The use of the homo- or copolymers as polyelectrolytes in cosmetic formulations, conductivity enhancing agents, and flocculation and oil recovery agents is claimed. The polymers are non-corrosive, have a high-charge density and are hydrolysis resistant.</p> <p><u>PREFERRED COMPOSITION</u> (I) is unsubstd. 1-vinyl imidazole, (II) is one or more of 1-vinylpyrrolidone, 2-hydroxy(m)ethacrylate, 2-hydroxypropylacrylate or 3-hydroxypropylacrylate and (III) is methyl iodide or dimethyl sulphate or diethyl sulphate. Homo- or copolymer comprises 10-98 wt.% (I) in quat. form and 2-90 wt.% (II).</p> <p><u>EXAMPLE</u> Mixture (A) comprised 280 g 3-methyl-vinylimidazolium DE4138763-A+</p>
<p>Homo- or copolymers derived from quat. 1-vinylimidazoles comprising 10-100 wt.% 1-vinylimidazole of formula (I) and 0-90 wt.% copolymerisable monomer (II) (wrt sum of (I) in quat. form and (II)) are prepd. by adding a quaternising agent of formula (R⁴)_nA (III) to the homo- or copolymer.</p> <div> <p style="text-align: center;">(I)</p> </div> <p>R¹, R², R³ = H or 1-4C alkyl.</p>	

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<p>methylsulphate, 15 g N-vinylpyrrolidone and 400 g H₂O with 10 wt.% NaOH at pH 7.5. Mixture (B) comprised 2.5 g 2,2'-azobis(2-methylpropionamidine)-dihydrochloride and 100 g H₂O. 100 ml (A), 12 ml (B) and 300 g H₂O were heated to 65°C, with the remaining (A) added over 5 hrs. and remaining (B) added over 7 hrs. After heating for a further 1 hr., a clear viscous polymer soln. having a K-value of 110.5 (1 wt.% aq. soln., 25°C) was obtd. (8pp2382SLDwgNo0/0).</p> <p>Addnl. Data: MEYER H, SANNER A, REINHARDT R, FROSCH F, RAUBENHEIMER H J</p>	<p style="text-align: right;">DE4138763-A</p>
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